

## CLAIMS

1           1. A coating for a smoothing and/or polishing element, particularly a flexible grinding  
2 wheel, provided with a flexible abrasive insert, for smoothing and polishing stone material,  
3 including an epoxy resin with poli-sulfuric polymers in a percentage between 34 and 52% by  
4 weight, a product to make the mixture thixotropic, in percentage between 12 and 19% by weight,  
5 primary amines, in percentage between 9 and 18% by weight, and synthetic diamond, treated by  
6 a polyvinyl-formal primer.

1           2. The coating according to claim 1, characterised in that wherein said coating has a  
2 thickness between 0.3 and 1.2 mm.

1           3. The coating according to claim 1, wherein said epoxidic resins with poli-sulfuric  
2 polymers are present in a percentage of 45% by weight.

1           4. The coating according to claim 1, wherein said product to make the mixture  
2 thixotropic is present in a percentage of 15% by weight.

1           5. The coating according to claim 1, wherein said primary amines are present in  
2 percentage of 15% by weight.

1           6. The coating according to claim 1, wherein said synthetic diamond, treated by a  
2 polyvinyl-formal primer, is present in a percentage of 25% by weight.

1           7. A grinding wheel, including a coating according to claim 1.

1           8. The coating according to claim 1, wherein said epoxy resins with poli-sulfuric  
2 polymers is comprised of a epoxy resin including a concentration and resin.

1           9. The coating according to claim 1, wherein said product to make the mixture  
2 thixotropic is comprised of carbon and corundum, having a chemical formula  $\text{SiO}_2 + 3\text{C} = \text{SiC} +$   
3  $2\text{CO}$ , the corundum is oven-heated at a temperature of  $2000^\circ\text{C}$  and the resulting product is used  
4 in granulometries and ranges from 6MESCH to 60 MESCH as a function of polishing phases.

1           10. The coating according to claim 1, wherein said primary amines are comprised of a  
2 resin-hardener working as a catalyst.

1           11. The coating according to claim 1, wherein said polyvinyl-formal primer is comprised  
2 of a drip-feed liquid to improve the efficacy of the resin.